Complete Summary

GUIDELINE TITLE

Acute pharyngitis.

BIBLIOGRAPHIC SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Acute pharyngitis. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2005 May. 33 p. [39 references]

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Acute pharyngitis. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2003 May. 27 p.

** REGULATORY ALERT **

FDA WARNING/REGULATORY ALERT

Note from the National Guideline Clearinghouse: This guideline references a drug(s) for which important revised regulatory information has been released.

On April 7, 2005, after concluding that the overall risk versus benefit profile is unfavorable, the FDA requested that Pfizer, Inc voluntarily withdraw Bextra (valdecoxib) from the market. The FDA also asked manufacturers of all marketed prescription nonsteroidal anti-inflammatory drugs (NSAIDs), including Celebrex (celecoxib), a COX-2 selective NSAID, to revise the labeling (package insert) for their products to include a boxed warning and a Medication Guide. Finally, FDA asked manufacturers of non-prescription (over the counter [OTC]) NSAIDs to revise their labeling to include more specific information about the potential gastrointestinal (GI) and cardiovascular (CV) risks, and information to assist consumers in the safe use of the drug. See the FDA Web site for more information.

Subsequently, on June 15, 2005, the FDA requested that sponsors of all non-steroidal anti-inflammatory drugs (NSAID) make labeling changes to their products. FDA recommended proposed labeling for both the prescription and over-the-counter (OTC) NSAIDs and a medication guide for the entire class of prescription products. All sponsors of marketed prescription NSAIDs, including Celebrex (celecoxib), a COX-2 selective NSAID, have been asked to revise the labeling (package insert) for their products to include a boxed warning, highlighting the potential for increased risk of cardiovascular (CV) events and the well described, serious, potential life-threatening gastrointestinal (GI) bleeding

associated with their use. FDA regulation 21CFR 208 requires a Medication Guide to be provided with each prescription that is dispensed for products that FDA determines pose a serious and significant public health concern. See the FDA Web site for more information.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Acute pharyngitis

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Treatment

CLINICAL SPECIALTY

Family Practice
Internal Medicine
Otolaryngology
Pediatrics

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Health Care Providers
Health Plans
Hospitals
Managed Care Organizations
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To present guidelines for primary care evaluation and management of acute pharyngitis in patients 3 years of age or older
- To reduce testing of patients for group A beta streptococcal pharyngitis who present with concomitant viral upper respiratory infection (VURI) symptoms
- To reduce excessive antibiotic treatment through decreased empiric treatment of patients with pharyngitis
- To increase the use of recommended first-line medications for patients with pharyngitis
- To increase patient knowledge about pharyngitis and pharyngitis care

TARGET POPULATION

Patients 3 years of age or older in general good health and not at risk, presenting with symptoms of group A beta streptococcal pharyngitis

This guideline does not apply to patients with serious symptoms (such as stridor, respiratory distress). Patients with complicating factors (such as diabetes, pregnancy, immunosuppression) may be included in the guideline after consultation with a provider.

INTERVENTIONS AND PRACTICES CONSIDERED

Evaluation/Diagnosis

1. Evaluate/screen for serious symptoms requiring immediate medical evaluation
2. Evaluate/screen for complicating factors requiring consultation with a provider
3. Rapid strep test (RST) or strep throat culture (STCX)

Management/Treatment

1. Antibiotic therapy, including:
    - Penicillin V potassium (PCN-VK)
    - Penicillin G benzathine
    - Erythromycin
    - Cephalexin
    - Clindamycin
2. Patient education regarding:
    - Home remedies
    - Antibiotic treatments
    - The importance of eliminating close contact with family members or visitors to the home while group A beta streptococcal pharyngitis may be contagious
    - Non-strep causes of sore throat where applicable

MAJOR OUTCOMES CONSIDERED

- Prevalence, sensitivity, specificity, and positive predictive value of rapid strep test and strep culture test
- Advantages and disadvantages of antibiotic treatment

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

No additional description of literature search strategies is available.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Not stated

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

The guideline developers reviewed a published cost analysis.

METHOD OF GUIDELINE VALIDATION

Clinical Validation-Pilot Testing
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Institute Partners: System-Wide Review

The guideline draft, discussion, and measurement specification documents undergo thorough review. Written comments are solicited from clinical, measurement, and management experts from within the member medical groups during an eight-week period of "Critical Review".

Each of the Institute's participating medical groups determines its own process for distributing the guideline and obtaining feedback. Clinicians are asked to suggest modifications based on their understanding of the clinical literature coupled with their clinical expertise. Representatives from all departments involved in implementation and measurement review the guideline to determine its operational impact. Measurement specifications for selected measures are developed by the Institute for Clinical Systems Improvement (ICSI) in collaboration with participating medical groups following general implementation of the guideline. The specifications suggest approaches to operationalizing the measure.

Guideline Work Group: Second Draft

Following the completion of the "Critical Review" period, the guideline work group meets 1 to 2 times to review the input received. The original guideline is revised as necessary and a written response is prepared to address each of the suggestions received from medical groups. Two members of the Respiratory Steering Committee carefully review the Critical Review input, the work group responses, and the revised draft of the guideline. They report to the entire committee their assessment of two questions: (1) Have the concerns of the medical groups been adequately addressed? (2) Are the medical groups willing and able to implement the guideline? The committee then either approves the guideline for pilot testing as submitted or negotiates changes with the work group representative present at the meeting.

Pilot Test

Medical groups introduce the guideline at pilot sites, providing training to the clinical staff and incorporating it into the organization's scheduling, computer, and other practice systems. Evaluation and assessment occurs throughout the pilot test phase, which usually lasts for three months. Comments and suggestions are solicited in the same manner as used during the "Critical Review" phase.

The guideline work group meets to review the pilot sites' experiences and makes the necessary revisions to the guideline, and the Respiratory Steering Committee reviews the revised guideline and approves it for implementation.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The recommendations for the management of acute pharyngitis are presented in the form of an algorithm with 17 components, accompanied by detailed annotations. An algorithm is provided for Acute Pharyngitis. Clinical highlights and selected annotations (numbered to correspond with the algorithm) follow.

Class of evidence (A-D, M, R, X) ratings are defined at the end of the "Major Recommendations" field.

Clinical Highlights

1. Diagnosis of group A beta streptococcal (GABS) pharyngitis should be made by laboratory testing rather than clinically. (Annotations #11 and #16. See original guideline document.)
2. Patients diagnosed with GABS pharyngitis should be treated with penicillin. Patients with this diagnosis should be treated with erythromycin if they are allergic to penicillin. (Annotation #16)
3. Patients who are diagnosed with GABS pharyngitis should be educated on strep pharyngitis including the importance of following the prescribed medication regimen, use of home remedies to relieve symptoms, actions to take if symptoms worsen, and the importance of eliminating close contact with family members or visitors to the home while GABS may be contagious. (Annotation #17)
4. If laboratory testing indicates that sore throat is not caused by GABS, patients need to be educated on ineffectiveness of antibiotic treatment, use of home remedies to relieve symptoms, and actions to take if symptoms worsen. (Annotation #15)

Acute Pharyngitis Algorithm Annotations

1. Patients Greater than 3 Years Old with Symptoms of Group A beta Streptococcal (GABS) Pharyngitis

   Symptoms typically associated with GABS pharyngitis:

   - Sudden onset of sore throat
   - Exudative tonsillitis
   - Tender anterior cervical adenopathy
   - History of fever
   - Headache
   - Abdominal pain

   Symptoms sometimes associated with GABS pharyngitis:

   - Vomiting
   - Malaise
   - Anorexia
   - Rash or urticaria

   Patients with recent strep exposure may be more likely to have GABS pharyngitis.

This guideline should not be applied to children less than 3 years of age.

Evidence supporting this recommendation is of classes: A, C, R

2. Serious Symptoms?
    - Stridor
    - Respiratory distress (not due to congestion)
    - Air hunger
    - Drooling
    - Inability to swallow liquids
    - Trismus (inability to open the mouth fully)
    - Severity of symptoms judged worrisome at triage

    Upper airway obstruction symptoms:

    Patients with epiglottitis or peritonsillar/retropharyngeal abscess may have signs of upper airway obstruction (stridor, air hunger, respiratory distress, toxic appearance, cyanosis, drooling with epiglottis) and require immediate medical evaluation with combined ears, nose, throat (ENT)/anesthesia management in emergency room or operating room setting.

    Severe symptoms including inability to swallow liquids, trismus, drooling without respiratory distress should receive prompt evaluation by a physician within a reasonable amount of time depending on the symptoms.

    Evidence supporting this recommendation is of class: R

4. Complicating Factors?

    Key Points:

    - This guideline applies to patients in generally good health with none of the following risk factors. Patients with complicating factors should consult with a provider.

    Patients with these conditions may be included in this guideline after consultation with a provider:

    - History of rheumatic fever
    - Human immunodeficiency virus (HIV) positive
    - Patient on chemotherapy
    - Immunosuppressed
    - Diabetes mellitus
    - Pregnant
    - Patient started antibiotics prior to diagnosis
    - Sore throat for more than 5 days duration
    - Persistent infection/treatment failure - recurrence of symptoms within 7 days of completing antibiotic therapy
    - Recurrent streptococcal pharyngitis - recurrence of culture positive GABS pharyngitis more than 7 days but within 4 weeks of completing antibiotic therapy

Evidence supporting this recommendation is of classes: A, R

8. Patient on Antibiotics for Other Conditions?

   Patients currently on anti-streptococcal antibiotics are unlikely to have streptococcal pharyngitis. Antibiotics not reliably anti-streptococcal include sulfa medications (Septra®, Bactrim®, Gantrisin®), nitrofurantoin (Macrodantin®), and tetracycline.

9. Education for Home Remedies

   Key Points:

   - Treatment failure for GBS is rare.
   - Education is needed on home remedies for sore throats.
   - The patient should be instructed to call back if the symptoms worsen or if they persist beyond 5-7 days.

   When a patient currently on antibiotics (other than sulfa, tetracycline, nitrofurantoin, or other non-strep antibiotics) is taking the medication as prescribed and develops a sore throat, chances are that the sore throat is caused by something other than GABS.

   Home remedies include:

   - Take acetaminophen or ibuprofen. Do not use aspirin with children and teenagers because it may increase the risk of Reyes Syndrome.
   - Gargle with warm salt water (1/4 teaspoon of salt per 8 oz glass of water).
   - Adults or older children may suck on throat lozenges, hard candy, or ice. Gargling with ice water can be soothing.
   - Eat soft foods. Drink cool beverages or warm liquids.
   - Suck on flavored frozen desserts (such as popsicles).

   Health education resources are listed in the Support for Implementation section of the original guideline document.

11. Perform Rapid Strep Test (RST)

13. Strep Culture (STCX)

   Key Points:

   - Empiric treatment of GABS is discouraged due to poor diagnostic accuracy even with elaborate clinical scoring systems.
   - RST is useful but does not have sufficient sensitivity to be used alone.
   - STCX is the most sensitive test for GABS but treatment needs to be delayed until the test results are available.
   - RST followed by STCX has the highest positive predictive value that the patient actually has the illness.

RST and STCX both require proper collection technique by trained professionals and must be performed according to the Federal Clinical Laboratory Improvement Act (CLIA) regulations. Poor collection procedures reduce accuracy of either test. RST must also be performed according to the manufacturer's guidelines. An appropriately performed throat swab touches both tonsillar pillars and the posterior pharyngeal wall. The tongue should not be included (although its avoidance is sometimes technically impossible). Backup STCX is needed if the RST is negative. The best yield is obtained by using separate swabs for RST and STCX.

If RST is not available, STCX (culture to determine the absence or presence of GABS) should be performed. Generally treatment should be delayed until STCX results are available. Results are usually available within 24 hours or slightly less, but may require incubation for longer periods of time. Some clinicians choose to initiate treatment prior to culture result availability, but a full course of treatment should not be prescribed until culture results confirm the presence of GABS.

A less satisfactory strategy is empiric treatment. Using complex clinical scoring systems or in patients with the complete constellation of classic strep symptoms, empiric treatment may be justified, but it has significant limitations. If full course treatment is initiated without intent to rely on the test results, laboratory testing is redundant and wasteful. Routinely culturing and prescribing antibiotic treatment for asymptomatic family members is not recommended. Routinely reculturing patients after treatment with antibiotics is not recommended.

Evidence supporting this recommendation (clinical scoring system) is of class: C

Evidence supporting this recommendation (RST and STCX) is of classes: C, M, R

14. STCX Result

Whether or not the test is positive, patients and their families want to know results as soon as possible so that they can appropriately plan for their needs.

- If negative, they need educational information and a planned course of action if they do not recover in a reasonable time frame or if they become more ill.
- If positive, patients want to be started on medication as rapidly as possible, primarily as a comfort or convenience issue and to reduce contagion. Rheumatic fever prophylaxis is likely satisfactory if started within a week of the positive culture; however, patients and parents may perceive any delay in initiation of treatment as poor service.

15. Educate on Non-GABS Pharyngitis

If the RST or the STCX is negative, the patient needs to be educated on non-strep sore throats. This includes the duration of the symptoms,

ineffectiveness of antibiotic treatment, and home remedies that will ease the symptoms. The patient should be instructed to call back if the symptoms worsen or if they persist beyond 5 to 7 days.

Home remedies include:

- Take acetaminophen or ibuprofen. Do not use aspirin with children or teenagers because it may increase the risk of Reyes Syndrome.
- Gargle with warm salt water (1/4 tsp of salt per 8 oz glass of water).
- Adults or older children may suck on throat lozenges, hard candy, or ice. Gargling with ice water can be soothing.
- Eat soft foods. Drink cool beverages or warm liquids.
- Suck on flavored frozen desserts (such as popsicles).

Provide educational material about non-strep causes of sore throats and home remedies for the patient to take home. Health education resources are included in the Support for Implementation section of the original guideline document.

16. Treatment (see Table I in the original guideline document)

Key Points:

- Penicillin (PCN) is the drug of choice for treatment of culture positive cases of GABS pharyngitis.
- In PCN-allergic patients, erythromycin is the drug of choice.

Primary Episodes

- Penicillin (PCN) is the drug of choice for treatment of culture positive cases of GABS pharyngitis.

  Penicillin remains the drug of choice for streptococcal pharyngitis. Amoxicillin offers no microbiologic advantage as compared to the narrower spectrum penicillin. Although the taste of amoxicillin suspension is preferable to PCN suspension, providers can consider promoting the benefits of twice a day (BID) versus three times a day (TID) dosing (no school/daycare dosing), low cost, narrow spectrum, and the excellent therapeutic record of penicillin for strep pharyngitis to patients and parents to encourage its use.

- Intramuscular (IM) penicillin may be advisable if the possibility of poor compliance is a concern.
- In PCN-allergic patients, erythromycin is the drug of choice. If the adverse reaction was not anaphylaxis, cephalexin is still a reasonable choice.
- Clinicians may decide to utilize cephalosporins as a first round treatment for GABS if clinical failure rates locally are a concern. Certainly cost benefit issues may apply in this event. Future studies may help to clarify this issue.

- In PCN- and erythromycin-allergic patients, consideration should be given to spectrum and cost of antibiotic chosen.
- Although broader spectrum PCNs, such as ampicillin and amoxicillin, are often used for treatment of GABS pharyngitis, they offer no microbiologic advantage over the narrower spectrum PCN.

  There is some evidence that GABS are becoming resistant to macrolide antibiotics. Local resistance patterns should be included in the consideration for an alternative antibiotic choice in PCN allergic patients.

  Please refer to Table I in the original guideline document for additional information.

Persistent Infections/Treatment Failure

- Treatment of persistent infection should be directed toward eradication of both GABS and beta-lactamase--producing protective organisms.

  Note: All episodes consist of clinical findings and positive lab tests within 7 days after completion of a course of antibiotic therapy.

- Recommendations:

  Erythromycin
  Cephalexin
  Clindamycin
  Amoxicillin/clavulanate

Evidence supporting this recommendation (use of penicillin) is of classes: A, R

Evidence supporting this recommendation (use of cephalosporins) is of classes: D, M, R

Carrier State

Two alternative treatment protocols have been established in the literature as effective in eliminating the carrier state. Clindamycin 20mg/kg/day in 3 divided doses (max 450 mg/day) x 10 days is the treatment of choice if the decision is made to treat the carrier state. If clindamycin is not a suitable therapeutic choice, consideration can also be given to penicillin and rifampin.

Evidence supporting this recommendation is of classes: A, M, R

17. Educate on GABS Pharyngitis

When the strep screen is positive, it is important for the patient or caregiver to understand the course of the illness and the importance of taking the complete course of antibiotics. Patients should be aware that they are contagious until they have been on the antibiotic for 24 hours, and that they

should see improvement in acute symptoms within 48 hours. In order to prevent the occurrence of rheumatic fever, it is vital for patients to continue antibiotics for the full course of treatment even when they feel completely better. Patients or the caregivers should call their health care provider if the patient is not feeling significantly better or if their symptoms persist or worsen after 48 hours, or if other members of the family show the same symptoms.

Home remedies are the same as recommended for non-GABS pharyngitis (see Annotation #15).

Provide educational material and antibiotic chart for the patient to take home. This information should include the importance of eliminating close contact with family members or visitors to the home because GABS may be contagious.

Appropriate education on treatment and care of strep throat should be available. Emphasis needs to be placed on informing the patient to remain at home until 24 hours of antibiotic therapy has been received.

Evidence supporting this recommendation is of class: A

Definitions:

Classes of Research Reports:

A. Primary Reports of New Data Collection:

Class A:

- Randomized, controlled trial

Class B:

- Cohort study

Class C:

- Non-randomized trial with concurrent or historical controls
- Case-control study
- Study of sensitivity and specificity of a diagnostic test
- Population-based descriptive study

Class D:

- Cross-sectional study
- Case series
- Case report

B. Reports that Synthesize or Reflect upon Collections of Primary Reports

Class M:

- Meta-analysis
- Systemic review
- Decision analysis
- Cost-effectiveness study

Class R:

- Consensus statement
- Consensus report
- Narrative review

Class X:

- Medical opinion

CLINICAL ALGORITHM(S)

A detailed and annotated clinical algorithm is provided in the original guideline document for Acute Pharyngitis.

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The guideline contains an annotated bibliography and discussion of the evidence supporting each recommendation. The type of supporting evidence is classified for selected recommendations (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Following the guideline recommendation may:

- Guide the primary care provider in appropriate evaluation and management of acute pharyngitis in patients 3 years of age or older
- Decrease the incidence of rheumatic fever and suppurative complications of patients with group A beta streptococcal infections
- Minimize the secondary spread of illness
- Shorten the course of the illness
- Reduce testing of patients for group A beta streptococcal pharyngitis who present with concomitant viral upper respiratory infection (VURI) symptoms
- Reduce cost by standardizing the diagnosis and treatment of pharyngitis
- Reduce excessive antibiotic treatment
- Increase the use of recommended first-line medications for patients with pharyngitis
- Increase patient knowledge about pharyngitis and pharyngitis care

Refer to the original guideline document (Annotations #11 and 13) for information on advantages of rapid strep test (RST), strep culture test (STCX), short-term treatment awaiting culture, and empirical treatment of classic strep presentation.

POTENTIAL HARMS

- Penicillin G Benzathine (intramuscular). Side effects include pain at the injection site. There is a possible increased incidence of allergies with procaine; if serious allergy develops, cannot discontinue drug exposure.
- Erythromycin. May cause gastrointestinal upset.
- Clindamycin. Pseudomembranous colitis may occur up to several weeks after cessation of therapy. Stevens Johnson syndrome may also occur.

Refer to the original guideline document (Annotations #11 and 13) for information on disadvantages of rapid strep test (RST), strep culture test (STCX), short-term treatment awaiting culture, and empirical treatment of classic strep presentation.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- These clinical guidelines are designed to assist clinicians by providing an analytical framework for the evaluation and treatment of patients, and are not intended either to replace a clinician's judgment or to establish a protocol for all patients with a particular condition. A guideline will rarely establish the only approach to a problem.
- This clinical guideline should not be construed as medical advice or medical opinion related to any specific facts or circumstances. Patients are urged to consult a health care professional regarding their own situation and any specific medical questions they may have.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

Once a guideline is approved for general implementation, a medical group can choose to concentrate on the implementation of that guideline. When four or more groups choose the same guideline to implement and they wish to collaborate with others, they may form an action group.

In the action group, each medical group sets specific goals they plan to achieve in improving patient care based on the particular guideline(s). Each medical group shares its experiences and supporting measurement results within the action group. This sharing facilitates a collaborative learning environment. Action group learnings are also documented and shared with interested medical groups within the collaborative.

Currently, action groups may focus on one guideline or a set of guidelines such as hypertension, lipid treatment, and tobacco cessation.

Detailed measurement strategies are presented in the original guideline document to help close the gap between clinical practice and the guideline recommendations. Summaries of the measures are provided in the National Quality Measures Clearinghouse (NQMC).

IMPLEMENTATION TOOLS

Clinical Algorithm
Pocket Guide/Reference Cards
Quality Measures

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

RELATED NQMC MEASURES

- Acute pharyngitis: percentage of patients with a strep screen that have viral upper respiratory infection (VURI) symptoms.
- Acute pharyngitis: percentage of patients with a diagnosis of pharyngitis that had strep screen testing.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1998 Aug (revised 2005 May)

GUIDELINE DEVELOPER(S)

Institute for Clinical Systems Improvement - Private Nonprofit Organization

GUIDELINE DEVELOPER COMMENT

Organizations participating in the Institute for Clinical Systems Improvement (ICSI): Affiliated Organizations participating in the Institute for Clinical Systems Improvement (ICSI): Affiliated Community Medical Centers, Allina Medical Clinic, Altru Health System, Aspen Medical Group, Avera Health, CentraCare, Columbia Park Medical Group, Community-University Health Care Center, Dakota Clinic, ENT Specialty Care, Fairview Health Services, Family HealthServices Minnesota, Family Practice Medical Center, Gateway Family Health Clinic, Gillette Children's Specialty Healthcare, Grand Itasca Clinic and Hospital, HealthEast Care System, HealthPartners Central Minnesota Clinics, HealthPartners Medical Group and Clinics, Hutchinson Area Health Care, Hutchinson Medical Center, Lakeview Clinic, Mayo Clinic, Mercy Hospital and Health Care Center, MeritCare, Mille Lacs Health System, Minnesota Gastroenterology, Montevideo Clinic, North Clinic, North Memorial Care System, North Suburban Family Physicians, Northwest Family Physicians, Olmsted Medical Center, Park Nicollet Health Services, Pilot City Health Center, Quello Clinic, Ridgeview Medical Center, River Falls Medical Clinic, Saint Mary's/Duluth Clinic Health System, St. Paul Heart Clinic, Sioux Valley Hospitals and Health System, Southside Community Health Services, Stillwater Medical Group, SuperiorHealth Medical Group, University of Minnesota Physicians, Winona Clinic, Ltd., Winona Health

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SOURCE(S) OF FUNDING

The following Minnesota health plans provide direct financial support: Blue Cross and Blue Shield of Minnesota, HealthPartners, Medica, Metropolitan Health Plan, PreferredOne and UCare Minnesota. In-kind support is provided by the Institute for Clinical Systems Improvement's (ICSI) members.

GUIDELINE COMMITTEE

Respiratory Steering Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Work Group Members: William Rabe, MD (Work Group Leader) (RiverWay Clinics) (Pediatrics); Margaret Gill, MD (Mayo Clinic) (Family Practice); James Hart, MD (HealthPartners Medical Group) (Internal Medicine); Edward Ratner, MD (Community-University Health Care Center) (Internal Medicine); Leonard Snellman, MD (HealthPartners Medical Group) (Pediatrics); Kim Little, MS (HealthPartners Medical Group) (Laboratory); Julie White, RN (HealthPartners Medical Group) (Nursing); Laurie Fenwick (Minnesota Life) (Employer Group Representative); Penny Fredrickson (Institute for Clinical Systems Improvement) (Measurement Advisor); Linda Setterlund, MA (ASCP) (Institute for Clinical Systems Improvement) (Facilitator)

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

In the interest of full disclosure, Institute for Clinical Systems Improvement (ICSI) has adopted a policy of revealing relationships work group members have with companies that sell products or services that are relevant to this guideline topic. The reader should not assume that these financial interests will have an adverse impact on the content of the guideline, but they simply are noted here to fully inform readers. Readers of the guideline may assume that only work group members listed below have potential conflicts of interest to disclose.

No work group members have potential conflicts of interest to disclose.

ICSI's conflict of interest policy and procedures are available for review on ICSI's website at http://www.icsi.org.

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Acute pharyngitis. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2003 May. 27 p.

GUIDELINE AVAILABILITY

Electronic copies: Available from the Institute for Clinical Systems Improvement (ICSI) Web site.

Print copies: Available from ICSI, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; telephone, (952) 814-7060; fax, (952) 858-9675; Web site: www.icsi.org; e-mail: icsi.info@icsi.org.

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- ICSI pocket guidelines. April 2004 edition. Bloomington (MN): Institute for Clinical Systems Improvement, 2004. 404 p.

Print copies: Available from ICSI, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; telephone, (952) 814-7060; fax, (952) 858-9675; Web site: www.icsi.org; e-mail: icsi.info@icsi.org.

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on February 15, 2000. The information was verified by the guideline developer as of March 15, 2001. This summary was

updated by ECRI on May 23, 2001, June 19, 2002, and on December 30, 2003. This summary was updated on May 3, 2005 following the withdrawal of Bextra (valdecoxib) from the market and the release of heightened warnings for Celebrex (celecoxib) and other nonselective nonsteroidal anti-inflammatory drugs (NSAIDs). This summary was updated by ECRI on June 16, 2005, following the U.S. Food and Drug Administration advisory on COX-2 selective and non-selective non-steroidal anti-inflammatory drugs (NSAIDs). This summary was updated by ECRI most recently on July 19, 2005.

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Date Modified: 9/25/2006